Appl. No.: 09/868,716 Filed: June 20, 2001 Page 2

# Amendments to the Claims:

## 1.-29. (cancelled)

30. (currently amended) A method of detecting defects on shot cores or core packets used in the foundry industry comprising the steps of

illuminating each shot core or core packet by at least two light sources from different directions and so as to produce shadows which magnify an area of <a href="each shot">each shot</a> the core or core packet,

recording by means of a camera each illuminated shot core or core packet and the magnifying shadows resulting from the illumination to thereby produce recorded data which comprise a recorded image, and

processing the recorded data in a computer, and including processing the recorded image by comparing the recorded image with a record of reference data.

- 31. (previously presented) The method of Claim 30, wherein the camera is arranged at a fixed location.
- 32. (previously presented) The method of Claim 30, wherein the camera includes a lens and wherein the camera is encased at least in the region of the lens.
- 33. (previously presented) The method of Claim 30, wherein the processing step includes exchanging signals between the computer and a stored program control.

Appl. No.: 09/868,716 Filed: June 20, 2001 Page 3

34. (previously presented) The method of claim 30, comprising the further step of performing a qualitative or quantitative image evaluation on the recorded image.

### 35. (cancelled)

- 36. (previously presented) The method of Claim 30, wherein the comparing step includes a coarse correlation with the recorded data.
- 37. (previously presented) The method of Claim 30, wherein the recording step includes recording at least two images which are processed in the processing step.
- 38. (previously presented) The method of Claim 37, wherein the image processing step includes a position correction.
- 39. (previously presented) The method of Claim 38, wherein the position correction includes recording reference marks.
- 40. (previously presented) The method of Claim 39, wherein the reference marks are lines and/or dots on a base.

#### 41. (cancelled)

42. (previously presented) The method of Claim 30, wherein the image processing step comprises a defect detection.

## 43. (cancelled)

Appl. No.: 09/868,716 Filed: June 20, 2001 Page 4

#### 44. (cancelled)

45. (previously presented) A method of detecting defects on shot cores or core packets used in the foundry industry comprising the steps of

illuminating each shot core or core packet by at least two light sources from different directions and so as to produce shadows which magnify an area of the core or core packet,

recording by means of a camera each illuminated shot core or core packet and the magnifying shadows resulting from the illumination to thereby produce recorded data which comprise a recorded image, and

processing the recorded data in a computer and including processing the recorded image by comparing the recorded image with a record of reference data, and

wherein the processing step further includes a brightness adjustment for adapting the gray-scale values of the image.

- 46. (previously presented) The method of Claim 30, wherein the at least two light sources are operated in sequence.
- 47. (previously presented) The method of Claim 30, wherein the at least two light sources are operated with color differentiation.
  - 48. (cancelled)
  - 49. (cancelled)